REMARKS/ARGUMENTS

In the final Office action dated June 22, 2005, the Examiner rejected claims 1 and 3 - 14 under 35 U.S.C. § 102 and rejected claim 2 under 35 U.S.C. § 103. Reconsideration and reexamination are hereby requested for claims 1 - 14 that are pending in this application.

Response to the § 102 Rejection of the Claims

The Examiner rejected claims 1 and 3 - 14 under 35 U.S.C. § 102(e) as being anticipated by Born et al., U.S. Patent No. 6,247,040 (hereafter referred to as "Born"). Claims 1 and 8 are independent claims. Claims 2 - 7 depend on claim 1. Claims 9 - 14 depend on claim 8.

Born is directed to a fundamentally different method and structure for performing a context switch. Born does not switch contexts by setting a context index then accessing context data in a given one of several registers based on different values of the context index. Rather, Born physically moves data from one register (inactive register set) to another registers (active register set) to change context.

As stated at column 9, Born's switching of contexts involves either the host channel interface or the microprocessor manipulating the register values of the active register set. See, for example, column 16, lines 44 - 46 ("To perform a read or write operation the CPU 102 of the controller 101 programs an inactive context into the inactive context register.") Hence, Born teaches continually writing and rewriting the registers that hold context information.

In contrast, in a method practiced or an apparatus constructed in accordance with the claim 1 or claim 8, the context data in the registers need not be changed. Rather the context data may remain in the same register. By setting a value of the context index then, the desired context data may be obtained from the appropriate register. Hence, the method or system may easily transition between contexts.

Applicant again maintains that Born does not teach or suggest the use of a context index as claimed. The Examiner stated in the Response to Arguments section of the final Office action that "the context ID . . . <u>can serve</u> as an index value to determine the appropriate context switching operation." (Emphasis added.) Applicant submits that the proper issue here is not whether the context ID could serve such a purpose. Rather, the proper issue is whether Born teaches or suggests that the context ID be used for that purpose. Applicant submits that Born does not provide such teaching.

The context ID cited by the Examiner (col 13, lines 18 - 26 and column 14, lines 33 - 43) is not an index value that is used to perform a context switch as claimed. As discussed at column 13, lines 14 - 26, the context ID is used to determine whether a presently active command is the same command that initiated the disk transfer. Here, a context ID is associated with each command context. A context ID of the command context that initiated the disk transfer may be stored for the comparison.

However, this comparison is not even performed to determine whether to perform a context switch. Rather as discussed at column 13, lines 48 - 52 and column 15, lines 35 - 48, the

comparison signal 450 is used to control counters 406 and 426. Hence, in Born, other conditions, not "setting the context index to the second index value" are used to determine when to switch context.

The priority value cited by the Examiner (Abstract and column 3, lines 13 - 30) is not an index value that is used to perform a context switch as claimed. The priority values are not <u>set</u> to perform a context switch. Rather these are predefined values that are assigned to specific types of commands. The relationship between the priority values and the commands never changes. Although Born is silent on this point it must be assumed that these priority values are therefore preprogrammed (i.e., fixed) into the code or state machine. Hence, Born does not teach or suggest that priority values are stored in a context index. It follows then that Born does not teach or suggest "a context index is set to a first index value" and "setting the context index to the second index value to perform a context switch."

The Examiner maintains that "setting the context index to the second index value to perform a context switch" is taught by Born since "the type of command is interpreted by the host channel interface to determine the associated priority." However, the interpretation of command types is a very different (and much more complicated) process than the claimed technique of setting a context index to an index value. In view of the above, Applicant submits that Born does not teach or suggest the claimed context index and index value for performing a context switch.

Independent claims 1 and 8 are not anticipated by or obvious in view of Born because Born does not teach or suggest all of the limitations specifically set forth in claim 1 or claim 8:

Claim 1 recites, in part: "accessing context data in a first register of a peripheral system when a context index is set to a first index value," "setting the context index to the second index value to perform a context switch" and "accessing context data in a second register of the peripheral system when the context index is set to the second index value." As discussed above, Born does not teach or suggest the use of a context index as claimed.

Claim 8 recites, in part: "the register access circuit being configured to access the first register if the first index value is provided by the host computer, the register access circuit being further configured to access the second register if the second index value is provided by the host computer."

Thus, the register that is accessed (e.g., the first or second register) depends on whether the first or second index value is provided by the host computer. Born does not teach or suggest that the register to be accessed depends on which index value has been received.

In view of the above, Applicant submits claims 1 and 8 and claims 2 - 7 and 9 - 14 that depend on claims 1 and 8, respectively, are not anticipated by Born.

Response to the § 103 Rejection of Claim 2

The Examiner rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Born, in view of admitted prior art. Claim 2 depends on independent claim 1.
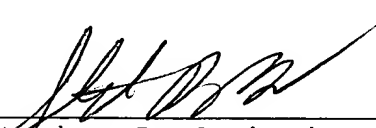
Independent claim 1 is not obvious in view of the cited art because these references do not teach or suggest all of the limitations of claim 1 as discussed above in conjunction with the rejection under section 102. Applicant therefore respectfully submits that claim 2 that depends on claim 1 is patentable over the cited art.

CONCLUSION

In view of the above amendment and remarks it is submitted that the claims are patentably distinct over the cited references and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested.

Respectfully submitted,

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